REMARKS

I. Status Summary

Claims 1-9 are pending in the present application and claims 1-9 stand rejected. Reconsideration of the application based on the arguments set forth hereinbelow is respectfully requested.

II. Claim Rejections Under 35 U.S.C. § 103

Claims 1-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,058,047 to Chung (hereinafter, "Chung") in view of U.S. Patent No. 6,389,069 to Mathe (hereinafter, "Mathe") and further in view of U.S. Patent No. 6,661,837 to Abdelilah et al. (hereinafter, "Abdelilah"). These rejections are respectfully traversed.

Claim 1 recites a codec circuit having a programmable digital bandpass filter for matching the filter characteristics of the codec circuit to a transmitted PCM signal. Further, Claim 1 recites at least one programmable digital high-pass filter and at least one programmable digital low-pass filter connected in series. Claim 1 also recites setting filter coefficients for the programmable high-pass and low-pass filters that are each set based on the identification of a PCM signal transmitted through the codec circuit. The PCM signal is identified by means of a signal identification device configured to identify the PCM signal in order to vary a bandpass filter characteristic for the programmable digital bandpass filter. Further, applicant respectfully submits that these features are not taught or suggested by Chung, Mathe, and Abdelilah, either alone or in combination.

Chung discloses transferring PCM samples to a time slot assigning circuit for receiving the PCM samples from a PCM highway, wherein a path is recognized for processing the PCM samples. (See column 4, lines 19-27, of Chung). Chung fails to disclose or suggest that any modifications to the codec circuit are taking place based on the type of the PCM signals. Further, circuit **10** of Chung only recognizes when a PCM signal is received. There is no disclosure or suggestion that circuit **10** determines or identifies a type of PCM signal. Further, there is no disclosure or suggestion of determining or identifying a type of PCM signal based on either a type of modulation or a transmission speed of the PCM signal. As such, Chung does not disclose or suggest the Claim 1 feature of a signal identification device configured to identify a PCM signal. Further, Chung does not disclose or suggest the Claim 1 feature of setting the setting filter coefficients for the programmable digital high-pass and low-pass filters based on identification of a PCM signal in order to vary a bandpass filter characteristic for the programmable digital bandpass filter.

Mathe fails to overcome the significant shortcomings of Chung. Mathe discloses a filter characteristic that depends on a programmable coefficient b_1, which is provided by microprocessor **24** (and microprocessor memory **26**). (See column 5, lines 5-16, of Mathe). The coefficient b_1 is chosen differently for CDMA and FM signals. There is no disclosure or suggestion in Mathe that the microprocessor first identifies the incoming PCM signal and then the microprocessor selects the ranges of the coefficient in accordance with the identified PCM signal. As such, Mathe fails to disclose or suggest the Claim 1 feature of a signal identification device configured to

identify a PCM signal. Further, Chung does not disclose or suggest the Claim 1 feature of setting the setting filter coefficients for the programmable digital high-pass and low-pass filters based on identification of a PCM signal in order to vary a bandpass filter characteristic for the programmable digital bandpass filter. Therefore, there is no teaching or suggestion in Mathe, even if combined with the teachings of Chung, of the presently claimed subject matter.

Further, the Examiner states that the combination of Chung and Mathe does not disclose that filter coefficients of programmable digital high-pass and low-pass filters are set by means of a signal identification device for identification of a PCM signal transmitted through a codec circuit, as a function of the transmitted PCM signal in order to vary a band-pass filter characteristic for a programmable digtal band-pass filter, as required by Claim 1. The Examiner contends that Abdelilah overcomes the shortcomings of Chung and Mathe. In particular, the Examiner contends that Abdelilah discloses that a band-pass filter characteristic of a programmable digital band-pass filter is varied based on a transmitted PCM signal. Applicant respectfully disagrees.

Abdelilah discloses that a PCM signal can be provided with different quantization levels according to the μ-law and A-law standard (for the U.S. and Europe, respectively). The quantization levels do not affect the sampling rate of V-34 modems of 8,000 times per second. For this reason, applicant respectfully submits that an adaptation of filters to the different standards is not necessary and not mentioned by the standards. The Examiner references column 8, lines 36-47, of

Abdelilah, where it is disclosed that an adaptive filter **94** is used for echo compensation. Filter **94** is used to match the sampling rate of a transmitter with the sampling rate of the receiver as discussed by the Examiner. The co-efficiency of filter **94** is trained during a start-up interval via test signals. (See column 8, line 65, to column 9, line 3, of Abdelilah). In contrast, the claimed subject matter distinguishes PCM signals and non-PCM signals. In particular, Claim 1 requires that filters are set when a PCM signal is identified. Abdelilah fails to disclose the Claim 1 feature of identifying a PCM signal for varying a bandpass filter characteristic of a programmable digital bandpass filter.

Applicant respectfully submits that, in view of the above amendments and remarks, Chung, Mathe, and Abdelilah, either alone or in combination, do not teach or suggest all of the elements recited by Claim 1. Accordingly, applicant respectfully requests that the rejection of Claim 1 under 35 U.S.C. §103(a) be withdrawn and the claim allowed at this time.

Claims 2-9 depend upon Claim 1. Therefore, the comments presented above relating to Claim 1 apply equally to Claims 2-9. Accordingly, for the reasons provided above for Claim 1, applicant respectfully requests that the rejection of Claims 2-9 under 35 U.S.C. § 103(a) be withdrawn and the claims allowed at this time.

CONCLUSION

In light of the above Remarks, it is respectfully submitted that the present application is now in proper condition for allowance, and an early notice to such effect is earnestly solicited.

If any small matter should remain outstanding after the Patent Examiner has had an opportunity to review the above Remarks, the Patent Examiner is respectfully requested to telephone the undersigned patent attorney in order to resolve these matters and avoid the issuance of another Official Action.

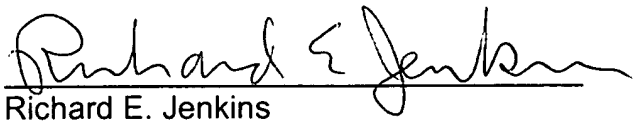
DEPOSIT ACCOUNT

The Commissioner is hereby authorized to charge any fees associated with the filing of this correspondence to Deposit Account No. **50-0426**.

Respectfully submitted,

JENKINS, WILSON, TAYLOR & HUNT, P.A.

Date: 12-11-06

By: 

Richard E. Jenkins
Registration No. 28,428
Customer No: 25297

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